

REMARKS

The office action of December 9, 2004 has been reviewed and the examiners comments carefully considered.

The claims have been amended in accordance with the specification. No new matter has been entered and favorable action is requested.

The examiner has rejected previous claims 1, 5, 6, 8, 12-14, 18, 19, 21 and 25 as being anticipated by the teachings of U.S. Patent 4,828,698 to Jewell et al (the '698 patent). These claims have been amended to further distinguish over this teaching, either taken alone or in combination with the prior art of record, and the claims will be addressed in turn.

In reviewing the claims it is important to note that, as cited in the specification, the "present invention generally relates to filters used to remove acids, water, particles and other material from fluids and, more particularly, the present invention relates to a filter assembly adapted for use with turbomachinery for filtering fluid flow passing through such turbomachinery". In contrast the '698 patent is directed toward a water purification system useful where there is no electricity for pumps (i.e. gravity fed). The water purifying filter of the '698 patent is an outside in flow design with an outer particulate filter 50, a downstream sorbant bed 51 which may include ion exchange resins for removing contaminants from water (e.g. water softening) and a downstream micro-biological filter 52.

Turning to independent claim 1, there are three critical claimed differences in the claim that structurally distinguish the claimed invention from the water filter of the '698 patent. First the filter element is defines as having an inside out flow, wherein fluid being treated by the filter element flows in a radial outward direction through the filter element. This is opposite to the teachings of the '698 patent arrangement. Secondly, the claimed fluid permeable ion exchange resin layer is structurally configured to remove mineral and organic acids from fluid passing through the filter element. There appears to be no clear teaching that the ion exchange resins for treating water and the like in the '698 patent for adsorbing or absorbing contaminants are structures to remove acids as claimed. Finally, claim 1 defines that the a pleated filter media is disposed about the ion exchange resin layer and core element downstream of the ion exchange resin layer. This claimed

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arrangement is opposite to the relative position of the filter 50 and the portion 51 in the '698 patent. In view of these differences the subject matter of claim 1 cannot be anticipated by the teachings of the '698 patent. Further, this subject matter is not obvious in view of the teachings of the '698 patent taken alone or in various combinations with the other prior art of record.

Dependent claim 5 depends from claim 1 and is allowable for all the reasons set forth in connection with claim 1 above. Claim 5 further structurally defines that the filter media of the present invention is designed to remove particulate and water from the fluid being filtered there through. The removal of water from the fluid being filtered cannot be found in the water purifying filter of the '698 patent, as such would make it inoperable for its intended purpose. Claim 5 further distinguishes the present invention from the applied prior art.

Dependent claim 6 depends from claim 5 and is allowable for all the reasons set forth in connection with claim 5 above. Dependent claim 6 further defines the structure of the ion resin exchange layer by defining the acids removed thereby. There is no teaching or suggestion in the '698 patent to provide an ion exchange resin layer therein that is structured to remove one or more of the listed acids from the fluid (e.g. water) being filtered.

Turning to independent claim 8, there are two critical claimed differences in the claim that structurally distinguish the claimed invention from the water filter of the '698 patent. These are generally similar to the final two distinctions discussed in connection with claim 1. Namely claim 8 defines that (1) the ion exchange resin layer is structured to remove mineral and organic acids from fluid passing through the filter element, and (2) the ion exchange resin layer is upstream of the pleated filter media relative to the direction of flow of the fluid being treated through the filter. As noted above this configuration of the ion exchange resin layer is not found in the '698 patent and the relative position thereof is opposite to the relative position of the filter 50 and the portion 51 in the '698 patent. In view of these differences the subject matter of claim 8 cannot be anticipated by the teachings of the '698 patent. Further, this subject matter is not obvious in view of the teachings of the '698 patent taken alone or in various combinations with the other prior art of record.

Dependent claim 12 depends from claim 8 and is allowable for all the reasons set forth in connection with claim 8 above. Claim 12 further structurally defines that the filter media of the present invention is designed to remove particulate and water from the fluid being filtered there through. This is allowable for the additional reasons set forth in discussing claim 5 above.

Dependent claim 13 depends from claim 12 and is allowable for all the reasons set forth in connection with claim 12 above. Dependent claim 12 further defines the structure of the ion resin exchange layer by defining the acids removed thereby, similar to the additions to claim 6 discussed above.

Independent claim 14 structurally defines a filter assembly for filtering lubricant fluid in turbomachinery, specifically claiming a cylindrical housing connected to the lubricant fluid of the turbomachine and a filter element structured to filter the lubricant fluid passing to the turbomachine. The examiner dismisses this limitation as a method of intended use, however this inappropriately dismisses the structural limitations defined in this language. In addition to the physical coupling to the turbomachinery the filter must be structured to filter the identified material. Clearly the water purification system of the '698 patent is not. It does not that it may be used on other fluids, but it does not teach or suggest lubrication fluid of turbomachinery. This is a distinctly different filter structure. The examiner cannot completely ignore these limitations. Further, claim 14 defines that the ion exchange resin layer is configured to remove mineral and organic acids from the lubricant fluid passing through the filter element. As noted above there is no teaching or suggestion of a ion exchange resin layer so constructed. As noted in the MPEP there is nothing inappropriate by defining a structural element by what it does, and this does define physical structure as known in the filtration art.

Dependent claim 18 depends from claim 14 and is allowable for all the reasons set forth in connection with claim 14 above. Dependent claim 18 further defines the structure of the ion resin exchange layer by defining the acids removed thereby, similar to the additions to claim 6 and 13 discussed above.

Dependent claim 19 depends from claim 18 and is allowable for all the reasons set forth in connection with claim 18 above. Dependent claim 19 further defines the

upstream position of the ion resin exchange layer, similar to the additions to claim 1 and 8 discussed above.

Independent claim 21 structually defines a filter assembly for filtering lubricant fluid in turbomachinery, specifically claiming a cylindrical housing connected to the lubricant fluid of the turbomachine and a filter element structured to filter the lubricant fluid passing to the turbomachine, and also defines that the ion exchange resin layer is configured to remove mineral and organic acids from the lubricant fluid passing through the filter element. These distinctions were discussed in connection with claim 14 above.

Dependent claim 25 depends from claim 21 and is allowable for all the reasons set forth in connection with claim 21 above. Dependent claim 25 further defines the structure of the ion resin exchange layer by defining the acids removed thereby, similar to the additions to claim 6, 13 and 18 discussed above.

The examiner has rejected original claims 2-4, 9-11, 15-17 and 22-24 in view of the combined teachings of the '698 patent taken in view of U.S. Patent 3,733,267 to Haase. The Haase patent is relied upon only for teaching of separation layers in compound filter elements. The Haase patent does not cure the deficiencies of the primary patent listed above.

Dependent claim 2 depends from claim 1 and is allowable for all the reasons set forth in connection with claim 1 above. Claim 2 further structurally defines that the filter media of the present invention is designed to remove particulate and water from the fluid being filtered there through. This is allowable for the additional reasons set forth in discussing claims 5 and 12 above. Dependent claim 2 further defines the structure of the ion resin exchange layer by defining the acids removed thereby, similar to the additions to claim 6, 13, 18 and 25 discussed above.

Dependent claims 3 and 4 each depend from claim 2 and are allowable for all the reasons set forth in connection with claim 2 above. Claims 3 and 4 each further structurally defines that the filter is designed to remove acids from synthetic hydraulic fluid.

Dependent claims 9-11, 15-17, and 22-24 include similar limitations discussed in connection with claims 2-3 above. Claim 17, which depends from claim 15. further

includes a relative positioning of the ion exchange resin layer relative to the particulate filter media.

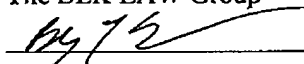
The examiner has rejected original claims 7 and 20 in view of the combined teachings of the '698 patent taken in view of U.S. Patent 5,873,920 to Wong et al. The Wong et al patent is relied upon only for teaching of a wire mesh co-pleated media layer construction. The Wong et al patent does not cure the deficiencies of the primary patent listed above.

Claims 7 and 20 further define the invention similar to claims 3, 5, 9, 12, and 23 discussed above.

Claims 1-25 remain in the application and favorable action is respectfully requested.

Respectfully Submitted;

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